

Appl. No. 10/628,892  
Examiner: Tran, Chuc, Art Unit 2821  
In response to the Office Action dated March 23, 2005

Date: June 23, 2005  
Attorney Docket No. 10112541

## REMARKS

Responsive to the Office Action mailed on March 23, 2005 in the above-referenced application, Applicant respectfully requests amendment of the above-identified application in the manner identified above and that the patent be granted in view of the arguments presented. No new matter has been added by this amendment.

### Present Status of Application

Claims 1, 3, 5, 7-9, 11 and 25-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Rankin et al (U.S. Patent No. 5,057,848; hereinafter "Rankin"). Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rankin in view of Sanford et al (U.S. Patent No. 6,313,801, hereinafter "Sanford").

In this paper, claims 1, 3, 7, 8, 27 and 28 are amended to more clearly identify novel and nonobvious features of the claimed invention. Specifically, the claims are amended to recite that the complex antenna apparatus comprises a capacitance loading monopole antenna. Support for these amendments can be found in FIG. 7 of the drawings and throughout the specification. Applicant submits that no new matter has been added. Claims 25 and 26 are canceled. Thus, on entry of this amendment, claims 1, 3, 5-11 and 27-28 remain in this application.

Reconsideration of this application is respectfully requested in light of the amendments and the remarks contained below.

### Rejections Under 35 U.S.C. 102(b)

Claims 1, 3, 5, 7-9, 11 and 25-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Rankin. To the extent that the grounds of the rejections may be applied to the claims now pending in this application, they are respectfully traversed.

Rankin does not teach or suggest a complex antenna apparatus comprising a **capacitance** loading monopole antenna, as recited in amended claims 1, 27 and 28.

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To anticipate a claim, a reference must teach every element of the claim. In this regard, the Federal Circuit has held:

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

"The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Rankin teaches a broadband frequency meter probe. There is no disclosure in Rankin of a capacitance loading monopole antenna. Namely, the monopole antenna 60 in Rankin is not a capacitance loading monopole antenna. With reference to column 2, line 65 to column 3, line 10 of Rankin, the features of the monopole antenna 60 are described as follows:

Monopole antenna 60 is preferably formed of a resistive portion 88 extending from a free end 90 to a mediate region 92 of antenna 60. Resistive portion 88 may be formed of a 0.030 inch diameter filament of carbon-loaded teflon as manufactured by Polymer Corp., 2120 Fairmont Avenue, Reading, Pa., 19603. A splice or crimp 94 joins resistive portion 88 to a conductive portion 96. Conductive portion 96 is preferably received in a socket 98, which connection is preferably formed of gold plated materials to provide a high quality connection. Resistive portion 88 is preferably two centimeters long, while the conductive portion 96 projecting above foil 70 is preferably one centimeter in length.

Accordingly, Rankin only states that the crimp 94 "joins" the resistive portion 88 and conductive portion 96 without disclosing any "capacitance" feature. If the crimp 94 were made of conductive material, there would be no "capacitance" because the crimp 94 is not insulated from the conductive portion 96. Furthermore, there would be no "capacitance" even if the crimp 94 were made of dielectric material.

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Neither Fig. 2 nor the specification of Rankin explicitly or implicitly teach that the resistive portion 88 is located between the crimp 94 and the conductive portion 96. In addition, the resistive portion 88 and conductive portion 96 shown in Fig. 2 of Rankin appear to be of the same diameter. What is more, the resistive portion 88 is not necessarily dielectric because the suggested material, carbon-loaded Teflon, is sometimes used as a conductor. See lines 54-59, column 8, U.S. Patent No. 4,897,600.

In sum, Applicant submits that Rankin does not teach or suggest any "capacitance" feature for monopole antenna 60. In contrast, each of claims 1, 17 and 28 recite a complex antenna apparatus comprising a capacitance loading monopole antenna. Capacitance coupling is shown in Fig. 7 of the present application in the conductive element 233 and the monopole linear antenna 231 of the capacitance loading monopole antenna. Impedance matching of the complex antenna apparatus can be easily adjusted by adjusting the capacitance coupling. This feature is not found in Rankin.

As Rankin does not teach all of the limitations recited in claims 1, 27 and 28 of the present application, it is Applicant's belief that these claims are allowable over Rankin. Insofar as claims 3 and 5-11 depend from claims 1, it is Applicant's belief that these claims are also allowable.

#### Rejections Under 35 U.S.C. 103(a)

Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rankin in view of Sanford et al. As noted above, it is Applicant's belief that that claims 6 and 8 are allowable by virtue of their dependency from claim 1. For this reason, the Examiner's arguments in connection with these claims are considered moot and will not be addressed here.

#### Conclusion

The Applicant believes that the application is now in condition for allowance and respectfully requests so.

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Respectfully submitted,



Nelson A. Quintero

Reg. No. 52,143

Customer No. 34,283

Telephone: (310) 401-6180

P111070NAQ